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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,948	11/27/2001	Paul Ranft	H 3516 PCT/US	9265

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EXAMINER

GOFF II, JOHN L

ART UNIT

PAPER NUMBER

1733

DATE MAILED: 07/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/807,948

Applicant(s)

RANFT ET AL.

Examiner

John L. Goff

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 7-10, 13, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Schubert et al. (PCT WO 96/20252 with U.S. Patent 5,776,406 used as a translation).

Schubert et al. are directed to a hot melt adhesive useful for the encapsulation of components such as electronic components (e.g. electronic circuits) by injection molding. Schubert et al. teach the hot melt adhesive comprises polyurethane and thermoplastic polymers such as polyester, polyethylene/vinyl acetate, etc. Schubert et al. teach the hot melt adhesive has a viscosity less than 100 Pa s. Schubert et al. teach a method for encapsulating the electronic component comprising providing the component in a mold and injecting into the mold the hot melt adhesive under an injection molding temperature of 70 to 200°C and an injection molding pressure of 1 to 60 bar. Schubert et al. teach the hot melt adhesive has good performance properties such as heat resistance, resistance to chemicals, good adhesion, etc. (Column 2, lines 12-18 and 63-65 and Column 7, lines 21-23 and Column 8, lines 50-54 and Column 9, lines 16-19 and Column 10, lines 50-67).

3. Claims 7 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Kamata et al. (JP 05105805 and see also the abstract and machine translation).

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Kamata et al. are directed to a thermoplastic hot melt adhesive used for embedding electronic parts by injection molding. Kamata et al. teach the hot melt adhesive comprises polyester type hot melt adhesive. Kamata et al. teach the hot melt adhesive has a viscosity of 50 to 5,000 P (i.e. 5 to 500 Pa s). Kamata et al. teach the hot melt adhesive has good performance properties such as heat resistance, resistance to peeling, etc. (See abstract).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 7-11 and 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glaser et al. (U.S. Patent 5,350,553) in view of either Schubert et al. or Kamata et al.

Glaser et al. disclose a method for producing smart cards comprising providing a support film in a mold, placing an electronic circuit chip on the support film, and injecting adhesive into

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the mold to encapsulate the circuit chip and form a smart card. Glaser et al. teach any suitable injection molding adhesive can be used (Figure 1 and Column 1, lines 7-10 and Column 3, lines 40-44 and Column 6, lines 48-66). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the adhesive taught by Glaser et al. a thermoplastic hot melt adhesive having a low viscosity as shown for example by either Schubert et al. or Kamata et al. as this type of adhesive was well known in the art for having good performance properties in the encapsulation of electronic components

Regarding claims 8-10, it would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the injection molding temperature and pressure as a function of the quality of smart card produced as it would have required nothing more than ordinary skill and routine experimentation. Further, it is noted Schubert et al. teach using an injection molding temperature of 70 to 200°C and an injection molding pressure of 1 to 60 bar.

7. Claims 7-10 and 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goetzendorfer et al. (EP 649719 and see also the abstract) in view of either Schubert et al. or Kamata et al.

Goetzendorfer et al. disclose a method for producing smart cards comprising providing an electronic module on a thermoplastic adhesive film, placing the film in a mold, and injecting additional thermoplastic adhesive into the mold to encapsulate the module and form a smart card. Goetzendorfer et al. teach the thermoplastic adhesive film and the injected thermoplastic adhesive are the same (See abstract). Goetzendorfer et al. are silent as to a particular thermoplastic adhesive. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the thermoplastic adhesive taught by Goetzendorfer et al. a

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thermoplastic hot melt adhesive having a low viscosity as this type of adhesive was well known in the art for having good performance properties in the encapsulation of electronic components as shown for example by either Schubert et al. or Kamata et al.

Regarding claims 8-10, it would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the injection molding temperature and pressure as a function of the quality of smart card produced as it would have required nothing more than ordinary skill and routine experimentation. Further, it is noted Schubert et al. teach using an injection molding temperature of 70 to 200°C and an injection molding pressure of 1 to 60 bar.

8. Claims 7-10 and 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tagami (JP 09240179 and see also the abstract and machine translation) in view of either Schubert et al. or Kamata et al.

Tagami discloses a method for producing smart cards comprising providing an integrated circuit on a thermoplastic adhesive film, placing the film in a mold, and injecting additional thermoplastic adhesive into the mold to encapsulate the circuit and form a smart card. Tagami teaches the thermoplastic adhesive film and the injected thermoplastic adhesive are the same (See abstract and paragraph 11 of the machine translation). Tagami teaches any thermoplastic adhesive can be used. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the thermoplastic adhesive taught by Tagami a thermoplastic hot melt adhesive having a low viscosity as this type of adhesive was well known in the art for having good performance properties in the encapsulation of electronic components as shown for example by either Schubert et al. or Kamata et al.

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Regarding claims 8-10, it would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the injection molding temperature and pressure as a function of the quality of smart card produced as it would have required nothing more than ordinary skill and routine experimentation. Further, it is noted Schubert et al. teach using an injection molding temperature of 70 to 200°C and an injection molding pressure of 1 to 60 bar.


Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **703-305-7481**. The examiner can normally be reached on M-Th (8 - 5) and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on 703-308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


John L. Goff
July 11, 2003


JEFF H. AFTERGUT
PRIMARY EXAMINER
GROUP 1300